

REMARKS

Claims 1-26 remain in the present application. Applicants respectfully request further examination and reconsideration of the rejections based on the arguments set forth below.

Claim Rejections – 35 U.S.C. §103

Claims 1-3, 5-7, 9-11, 14-15, 18-21 and 26

Claims 1-3, 5-7, 9-11, 14-15, 18-21 and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent Number 5,563,950 to Easter et al. (referred to herein as “Easter”) in view of United States Patent Number 7,062,769 to Ma et al. (referred to herein as “Ma”). Applicants respectfully submit that the embodiments of the present invention as recited in Claims 1-3, 5-7, 9-11, 14-15, 18-21 and 26 are not rendered obvious by Easter in view of Ma for the following reasons.

Applicants respectfully direct the Examiner to independent Claim 1 that recites a processor with secure cryptographic capabilities comprising (emphasis added):

a digital secret comprising a secret key used in a key-based cryptographic process, wherein said digital secret is stored only within said processor, and wherein said digital secret is operable to be used exclusively by said processor for both encryption and decryption;

a cryptography engine for performing said key-based cryptographic process internally within said processor, said cryptography engine operable to access said digital secret; and

internal memory coupled to said cryptography engine for supporting said key-based cryptographic process, wherein said internal memory is further for storing data associated with said key-based cryptographic process, and wherein said data is accessible only within said processor.

Independent Claims 10 and 21 recite limitations similar to independent Claim 1. Claims 2-3, 5-7, 9, 11, 14-15, 18-20 and 26 depend from their respective independent Claims and recite further limitations to the claimed invention.

Page 3 of the rejection states that Easter fails to teach or suggest the limitations of “wherein said internal memory is further for storing data associated with said key-based cryptographic process” as recited in independent Claim 1. Applicants concur.

Applicants respectfully submit that Ma, either alone or in combination with Easter, also fails to teach or suggest the limitations of “wherein said internal memory is further for storing data associated with said key-based cryptographic process” as recited in independent Claim 1. As recited and described in the present application, an internal memory is operable to store data associated with a key-based cryptographic process, where the data is accessible only within the processor (page 12, lines 4-13).

In contrast to the claimed embodiments, Applicants understand Ma to teach a class processor 10 with a processor 12 and a private memory 14 (Figure 1; line 56 of col. 3 to line 41 of col. 4). However, Ma fails to teach or suggest that memory 14 is *for storing data associated with a key-based cryptographic process* as claimed. Although Ma teaches that memory 14 is used by and is accessible only by processor 12, Applicants respectfully submit that Ma still fails to teach or suggest the type of data stored by memory 14 (e.g., data associated with a key-

based cryptographic process as claimed). Accordingly, Applicants reiterate that Ma, either alone or in combination with Easter, also fails to teach or suggest the limitations of “wherein said internal memory is further for storing data associated with said key-based cryptographic process” as recited in independent Claim 1.

For these reasons, Applicants respectfully submit that independent Claim 1 is not rendered obvious by Easter in view of Ma, thereby overcoming the 35 U.S.C. §103(a) rejection of record. Since independent Claims 10 and 21 recite limitations similar to those discussed above with respect to independent Claim 1, independent Claims 10 and 21 also overcomes the 35 U.S.C. §103(a) rejection of record. Since dependent Claims 2-3, 5-7, 9, 11, 14-15, 18-20 and 26 recite further limitations to the invention claimed in their respective independent Claims, Claims 2-3, 5-7, 9, 11, 14-15, 18-20 and 26 are also not rendered obvious by Easter in view of Ma. Therefore, Applicants respectfully submit that Claims 1-3, 5-7, 9-11, 14-15, 18-21 and 26 are allowable.

Claim 4

Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Easter in view of Ma, further in view of United States Patent Number 6,598,165 to Galasso (hereafter referred to as “Galasso”), and further in view of United States Patent Application Publication Number 2004/0243823 (hereafter referred to as “Moyer”). Applicants respectfully submit that the embodiments of the present invention as recited in Claim 4 are not rendered obvious by Easter in

view of Ma in view of Galasso and further in view of Moyer for the following reasons.

Applicants respectfully submit that Galasso and/or Moyer, either alone or in combination with the cited Easter/Ma combination, fail to cure the deficiencies of Easter and Ma discussed above with respect to independent Claim 1. Specifically, Galasso and/or Moyer fail to teach or suggest the limitations of “wherein said internal memory is further for storing data associated with said key-based cryptographic process” as recited in independent Claim 1. Consequently, since Claims 4 recites further limitations to the invention claimed in independent Claim 1, Claim 4 is not rendered obvious by Easter in view of Ma in view of Galasso and further in view of Moyer. Thus, Claim 4 overcomes the 35 U.S.C. §103(a) rejection of record.

Claims 8, 13 and 22

Claims 8, 13 and 22 are rejected under 35 U.S.C. §103(a) as being unpatentable over Easter in view of Ma and further in view of United States Patent Application Publication Number 2004/0098591 by Fahrny (hereafter referred to as “Fahrny”). Applicants respectfully submit that the embodiments of the present invention as recited in Claims 8, 13 and 22 are not rendered obvious by Easter in view of Ma in view of Fahrny for the following reasons.

Applicants respectfully submit that Fahrny, either alone or in combination with the cited Easter/Ma combination, fails to cure the deficiencies of Easter and

Ma discussed above with respect to independent Claims 1, 10 and 21.

Specifically, Fahrny fails to teach or suggest the limitations of “wherein said internal memory is further for storing data associated with said key-based cryptographic process” as recited in independent Claim 1, and similarly recited in independent Claims 10 and 21. Consequently, since Claims 8, 13 and 22 recite further limitations to the invention claimed in their respective independent Claims, Claims 8, 13 and 22 are not rendered obvious by Easter in view of Ma in view of Fahrny. Thus, Claims 8, 13 and 22 overcome the 35 U.S.C. §103(a) rejection of record.

Claim 12

Claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Easter in view of Ma in view of United States Patent Number 6,031,992 to Cmelik et al. (hereafter referred to as “Cmelik”). Applicants respectfully submit that the embodiments of the present invention as recited in Claim 12 is not rendered obvious by Easter in view of Ma in view of Cmelik for the following reasons.

Applicants respectfully submit that Cmelik, either alone or in combination with the cited Easter/Ma combination, fails to cure the deficiencies of Easter and Ma discussed above with respect to independent Claim 10. Specifically, Cmelik fails to teach or suggest the limitations of “wherein said internal memory is further for storing data associated with said key-based cryptographic process” as recited in independent Claim 1, and similarly recited in independent Claim 10.

Consequently, since Claims 12 recites further limitations to the invention claimed

in independent Claim 10, Claim 12 is not rendered obvious by Easter in view of Ma and further in view of Cmelik. Thus, Claim 12 overcomes the 35 U.S.C. §103(a) rejection of record.

Claims 16-17

Claims 16-17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Easter in view of Ma and further in view of United States Patent Application Publication Number 2004/0025036 by Balard et al. (hereafter referred to as “Balard”). Applicants respectfully submit that the embodiments of the present invention as recited in Claims 16-17 are not rendered obvious by Okada in view of Balard for the following reasons.

Applicants respectfully submit that Balard, either alone or in combination with the cited Easter/Ma combination, fails to cure the deficiencies of Easter and Ma discussed above with respect to independent Claim 10. Specifically, Balard fails to teach or suggest the limitations of “wherein said internal memory is further for storing data associated with said key-based cryptographic process” as recited in independent Claim 1, and similarly recited in independent Claim 10. Consequently, since Claims 16-17 recite further limitations to the invention claimed in independent Claim 10, Claims 16-17 are not rendered obvious by Easter in view of Ma and further in view of Balard. Thus, Claims 16-17 overcome the 35 U.S.C. §103(a) rejections of record.

Claims 23-24 and 26

Claims 23-24 and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Easter in view of Ma and further in view of Moyer. Applicants respectfully submit that the embodiments of the present invention as recited in Claims 23-24 and 26 are not rendered obvious by Easter in view of Ma and further in view of Moyer for the following reasons.

Applicants respectfully submit that Moyer, either alone or in combination with the cited Easter/Ma combination, fails to cure the deficiencies of Easter and Ma discussed above with respect to independent Claim 21. Specifically, Balard fails to teach or suggest the limitations of “wherein said internal memory is further for storing data associated with said key-based cryptographic process” as recited in independent Claim 1, and similarly recited in independent Claim 21. Consequently, since Claims 23-24 and 26 recite further limitations to the invention claimed in independent Claim 21, Claims 23-24 and 26 are not rendered obvious by Easter in view of Ma and further in view of Moyer. Thus, Claims 23-24 and 26 overcome the 35 U.S.C. §103(a) rejection of record.

CONCLUSION

Applicant respectfully submits that Claims 1-26 are in condition for allowance and Applicants earnestly solicit such action from the Examiner.

The Examiner is urged to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present application.

Please charge any additional fees or apply any credits to our PTO deposit account number: 50-4160.

Respectfully submitted,

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